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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/754,801

01/09/2004

Hoc-Won Kim

678-1120 (P10743)

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11/03/2006

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EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/754,801

Applicant(s)

KIM, HOE-WON

Examiner

Melur Ramakrishnaiah

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8-16-2006 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dailey (WO 00/69190) in view of Alisobhani et al. (US PAT: 6,760,393, filed 5-4-2000, hereinafter Alisobhani) and Hamalainen (US PAT: 5,966,378) and Hassan et al. (US PAT: 6,301,231, hereinafter Hassan)

Regarding claim 1, Dailey discloses a communication method for a mobile communication system, comprising the steps of: determining whether communication is needed between at least two MSs (137a, 137b', fig. 6) located in a service area of one BTS (132a, fig. 6), if the communication between at least two MSs is needed, assigning one common half duplex channel to the at least two MSs (page 16, line 26 – page 17, line 25).

Regarding claim 6, Dailey discloses a method of establishing communication between at least two MSs in a mobile communication system, comprising the steps of: determining whether the callee MS (137b', fig. 6) is located in a service area of one of BTS (132a, fig. 6) connected to caller MS (137a, fig. 6), if the callee MS and caller MS are located in the service area of the BTS, requesting to establish half-duplex message transmission between the caller MS and the called MS (this is implicit in as much as the reference teaches establishing a group call between (137a/caller MS) and (137b'/callee MS served by the same base station 132a in fig. 6), if the message communication between the caller MS and callee MS is needed, assigning one common physical half-duplex channel to the caller MS and callee MS, and if message is transmitted over a downlink channel of the half-duplex message channel assigned in common and transmitting the message (page 16, line 26 – page 17, line 25).

Dailey differs from claims 1 and 6 in that although he discloses transmitting messages between caller MS and callee MS; he does not explicitly teach the following: data transmission, and adding header to the data, and transmitting the header and the data to at least two MSs; and determining if a called MS had reported that it supports half-duplex communication when it registered in a network, adding to the data a header indicating a called MS of corresponding data

However, Alisobhani teaches the following: data transmission, and adding user data which includes addressing, CRC coding, etc and transmitting the data to at least two MSs (fig. 1, col. 11 lines 10-40); and Hamalainen discloses method, device and communication network for avoiding collisions in radio communication which teaches

determining if a MS had reported that it supports half-duplex communication when it registered in a network (col. 6 lines 30-43), and Hassan teaches the following: adding to the data a header indicating a called terminal of corresponding data (fig. 2, col. 4 lines 14-22).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Dailey's system to provide for the following: data transmission, and adding user data which includes addressing, CRC coding, etc and transmitting the data to at least two MSs as this arrangement would facilitate data transmission between MSs as taught by Alisobhani, thus making Dailey's communication system versatile for use; determining if a called MS had reported that it supports half-duplex communication when it registered in a network as this arrangement would facilitate to allot proper time slots for data transmission to avoid data transmission collision as taught by Hamalainen (col. 7 lines 6-24); adding to the data a header indicating a called MS of corresponding data as this arrangement would provide well known method of arranging data packet for transmission as is well known in the art.

4. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dailey in view of Alisobhani and Hamalainen and Hassan as applied to claim 1 above, and further in view of Ohashi (US PAT: 6467059).

Regarding claims 2-3, 5, the combination does not explicitly teach the following:  
at least two MSs receiving the data reply to corresponding traffic or signal data only

when they are indicated as a destination in a header of the data, one of at least two MSs has authority to transmit the data over an uplink channel of the half duplex data channel, the replying MS is periodically assigned small-sized uplink space to transmit reporting ACK data for received data.

However, Ohashi discloses wireless transmission system which teaches the following: at least two MSs (reads on 2-3, fig. 1) receiving the data reply to corresponding traffic or signal data only when they are indicated as a destination in a header of the data, one of at least two MSs has authority to transmit the data over an uplink channel of the half duplex data channel, the replying MS is periodically assigned small-sized uplink space to transmit reporting ACK data for received data (figs. 2-3, col. 6 lines 8-48, col. 7 lines 11-17, lines 45-67, col. 8 lines 1-14).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: at least two MSs receiving the data reply to corresponding traffic or signal data only when they are indicated as a destination in a header of the data, one of at least two MSs has authority to transmit the data over an uplink channel of the half duplex data channel, the replying MS is periodically assigned small-sized uplink space to transmit reporting ACK data for received data as this arrangement would provide well known procedure for transmitting/receiving data in half duplex transmission as taught by Ohashi, advantage being it provides a procedure for transmitting data successfully.

Regarding claim 4, the combination teaches the following: authority is removed by transmitting additional information to the BTS when one of the at least two MSs finish

transmitting of all of data (reads on message, page 20, line 31 – page 21, line 31 of '190).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

However, Examiner would like to address applicants arguments regarding references that were used in the original final rejection.

Regarding Dailey reference, Applicant argues that "It is respectfully asserted that Dailey only discloses transmitting a message between a called MS and a caller MS, but it fails to discloses transmitting a message between a caller MS and a called MS connected to a base station identical to the base station to which caller MS belongs, as set forth in paragraph a) of claim 1 and paragraphs a) through b) of claim 6". Contrary to applicant's interpretation of Dailey reference, Dailey teaches the following: Two MS 137a and 137b' (fig. 6) transmitting data between them in a half duplex mode through the same base station (132a, fig. 6, page 16, line 26 – page 17; line 35) which clearly read on transmitting a message between a caller MS and a called MS connected to a base station identical to the base station to which caller MS belongs, as set forth in paragraph a) of claim 1 and paragraphs a) through b) of claim 6.

Regarding Hamalainen reference, Applicant argues that "the present claims recite informing the network of whether the half-duplex data communication is supported when being registered to the network, and when the caller MS requests to connect the half-duplex data to the network, determining directly whether the half-

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duplex data connection of the called MS is supported referring to previously stored information. On the contrary, Hamalainen is not able to inform the base station or SGSN of whether the half duplex data communication of the called MS is supported or not unless the called MS is logged on to the network. Therefore, in Hamalainen ... whether or not the called MS supports the half-duplex data communication in response to a request of communication from the MS, as taught in the present claims”.

Regarding this, Hamalainen teaches mobile station informing the network elements such as BTS/SGSN that it is a simple terminal, i.e capable of only half duplex transmission during log-on process before request for data transmission which reads on applicant's so called this happening during registration of MS in preparation for data transmission in as much as this phase happens before actual data transmission.

In light of this explanation rejection of claims 1-6 as set forth in the office action above is maintained.

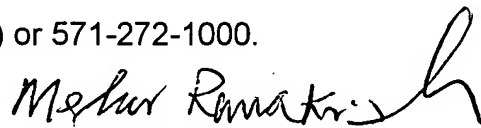
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Melur Ramakrishnaiah  
Primary Examiner  
Art Unit 2614